

Amendments to the Claims:

Claims 1-26 (**canceled**)

27. **(New)** A solid state image pickup device for obtaining a two-dimensional image, comprising:

a plurality of pixel units that are arranged two-dimensionally and each include a photoelectric conversion unit operable to convert incident light into a charge and an amplification unit operable to convert the charge into a voltage and output the voltage;

a plurality of noise signal removal units that are provided one for each column and operable to remove a noise contained in the voltage outputted from said amplification unit of said pixel unit belonging to the column; and

a plurality of column amplification units operable to amplify the voltage outputted from said amplification unit of said pixel unit belonging to the column and output the amplified voltage to said noise signal removal unit corresponding to the column,

wherein each of said pixel units, said noise signal removal units and said column amplification units is configured as an N-type MOS circuit.

28. **(New)** The solid state image pickup device according to claim 27, further comprising:

an impedance conversion unit operable to convert an impedance for the voltage outputted from said noise signal removal units; and

an output signal amplification unit operable to amplify the voltage outputted from said impedance conversion unit,

wherein each of said impedance conversion unit and said output signal amplification unit is configured as an N-type MOS circuit.

29. **(New)** The solid state image pickup device according to claim 28,

wherein said impedance conversion unit is a source follower circuit.

30. **(New)** The solid state image pickup device according to claim 27,
wherein each of said column amplification units includes:
an inverting amplifier; and
a switching unit provided between an input terminal and an output terminal of said
inverting amplifier.
31. **(New)** The solid state image pickup device according to claim 27,
wherein each of said column amplification units includes:
a plurality of column amplification circuits having different amplification degrees; and
a selection circuit that selects one of said column amplification circuits according to a
level of the input voltage.
32. **(New)** The solid state image pickup device according to claim 27,
wherein said noise signal removal units use a capacitance distribution method.
33. **(New)** The solid state image pickup device according to claim 27,
wherein each of said noise signal removal units has a capacitor, and
said capacitor is an N-type MOS capacitor.
34. **(New)** The solid state image pickup device according to claim 27, further comprising
a boosting voltage application unit operable to apply, to a load circuit that each of said
column amplification units has, a power supply voltage and a boosting voltage higher than the
power supply voltage.
35. **(New)** The solid state image pickup device according to claim 34,

wherein said boosting voltage application unit is a charge pump circuit that boosts the power supply voltage by a charge pump method.

36. **(New)** The solid state image pickup device according to claim 35,
wherein said charge pump circuit boosts the power supply voltage by using a driving pulse which selects a column.

37. **(New)** The solid state image pickup device according to claim 34,
wherein said boosting voltage application unit is a bootstrap circuit that is provided within each of said column amplification units and applies, to said load circuit, the power supply voltage and the boosting voltage higher than the power supply voltage.

38. **(New)** The solid state image pickup device according to claim 34,
wherein said load circuit is a first MOS transistor for load, and
the power supply voltage is applied to a drain of said first MOS transistor and the boosting voltage is applied to a gate of said first MOS transistor.

39. **(New)** The solid state image pickup device according to claim 38,
wherein each of said column amplification units includes a second MOS transistor for driving,
a source of said first MOS transistor is connected to a drain of said second MOS transistor and the voltage outputted from said amplification unit of said pixel unit belonging to the column is applied to a gate of said second MOS transistor through a clamp capacitance, and
the voltage outputted from said amplification unit of said pixel unit belonging to the column is amplified by an amplification degree determined by a ratio between resistance values of said first and second MOS transistors.

40. (New) The solid state image pickup device according to claim 39,
wherein each of said column amplification units
changes the amplification degree according to an input level of the voltage outputted from
said amplification unit of said pixel unit belonging to the column.

41. (New) The solid state image pickup device according to claim 39,
wherein each of said column amplification units includes:
a plurality of column amplification units having different amplification degrees; and
a selection unit operable to select one of said column amplification units according to an
input level of the voltage outputted from said amplification unit of said pixel unit belonging to
the column.

42. (New) The solid state image pickup device according to claim 39,
wherein said column amplification units
increase the amplification degree as an input level of the voltage outputted from said
amplification unit of said pixel unit belonging to the column decreases.

43. (New) The solid state image pickup device according to claim 39,
wherein each of said column amplification units further includes a third MOS transistor
for making voltages at the drain and gate of said second MOS transistor the same, and
initial state is set by a threshold voltage of said second MOS transistor and a black level
signal inputted to said column amplification units through the clamp capacitance from said
amplification unit of said pixel unit.

44. (New) The solid state image pickup device according to claim 39,
wherein each of said column amplification units

includes an interruption unit operable to interrupt a drive current of said second MOS transistor except during a necessary operation period.

45. **(New)** The solid state image pickup device according to claim 34,
further comprising an impedance conversion unit operable to convert an impedance for the voltage outputted from said noise signal removal units.

46. **(New)** The solid state image pickup device according to claim 45,
wherein said impedance conversion unit is a source follower circuit structured by using an NMOS transistor.

47. **(New)** The solid state image pickup device according to claim 34,
wherein said noise signal removal unit has a capacitor, and
said capacitor is an N-type MOS capacitor.

48. **(New)** The solid state image pickup device according to claim 34,
wherein said column amplification units are structured so as to be on a lower frequency side than a frequency band of said amplification units of said pixel units, and bandwidth-shape a noise frequency.

49. **(New)** The solid state image pickup device according to claim 34,
wherein said noise signal removal units are structured so as to be on a lower frequency side than a frequency band of said amplification units of said pixel units, and bandwidth-shape a noise frequency.

50. **(New)** A camera having said solid state image pickup device according to claim 27.